Developing a culture of safety in a reluctant audience

Lina Forsman, Anders Eriksson. Skateboarding injuries of today. *Br J Sports Med* 2001;35:325-328.

Abstract ● **Objective** To describe the injury pattern of skateboarding injuries today. ● **Methods** The pattern of injuries, circumstances, and severity were investigated in a study of 139 people injured in skateboarding accidents during 1995 through 1998 inclusive and admitted to the University Hospital of Umeå, Umeå, Sweden. This is the only hospital in the area, serving a population of 135,000. ● **Results** Of the 139 injured, 3 were pedestrians hit by a skateboard rider; the rest were riders. The age range was 7 to 47 years (mean, 16.0). The severity of the injuries was minor (Abbreviated Injury Scale 1) to moderate (Abbreviated Injury Scale 2); fractures were classified as moderate. The annual number of injuries increased during the study period. Fractures were found in 29% of the casualties, and four children had concussion. The most common fractures were of the ankle and wrist. Older patients had less severe injuries, mainly sprains and soft tissue injuries. Most children were injured while skateboarding on ramps and at arenas; only 12 (9%) were injured while skateboarding on roads. Some 37% of the injuries occurred because of a loss of balance and 26% because of a failed trick attempt. Falls caused by surface irregularities resulted in the highest proportion of the moderate injuries. ● **Conclusions** Skateboarding should be restricted to supervised skateboard parks, and skateboarders should be required to wear protective gear. These measures would reduce the number of skateboarders injured in motor vehicle collisions, the personal injuries among skateboarders, and the number of pedestrians injured in collisions with skateboarders.

In their report of a population-based study from Umeå, Sweden, Forsman and Eriksson describe the injuries sustained while skateboarding by 136 people during a 4-year period. Of the 136, more than half of whom were young teens, about one third sustained fractures, particularly of the wrist and ankle. Two thirds of injuries occurred while skating in public places and one quarter while skating in specially designed areas, parks, and ramps (often while attempting a trick). Twelve (9%) were injured while skating on roads.

These data compare remarkably well with information obtained by the National Electronic Injury Surveillance System in the United States.[1] During 2000 (the last year reported), an estimated 86,800 people were injured while skateboarding. Of the 86,800, about 60% were children or young teens, about 32% sustained a fracture, 23% had a strain or sprain, and only 2.4% sustained a brain injury. Injuries involved the lower arm and wrist in 21% (of which 61% were fractures), the head and face in 16%, and the ankle in another 16% (of which 27% were fractures).

Forsman and Eriksson recommend that skateboarders wear protective gear and restrict such activity to skateboard parks. Other experts likewise have recommended the use of wrist guards, elbow pads, and a helmet, based on a demonstrated 10-fold reduction in the risk of either a wrist or elbow injury while in-line skating[2] or a 6-fold reduction in the risk of sustaining a serious brain injury while riding a bicycle.[3] If generalizable to preventing skateboard injuries, these figures are compelling and would put these recommendations on firm scientific grounds.

A problem arises, however, in translating scientific information to the chief target group—adolescents—a largely reluctant population. Difficulty with modifying their behavior is not the result of poor communication; the media and various government agencies have addressed this problem. Rather, it is the interplay between the reluctance of teens to adopt safety measures and the lack of sufficient public health resources to change their attitude in this regard. Given that most teens feel impervious to injury, how do we convince them to adopt sound safety practices and still save face with their peers?

Indoor skateboard parks have addressed this problem by mandating the use of safety gear, a requirement borne out of risk management and potential liability. But this is only a partial solution to the wider problem, because skateboards are still used in open public areas and occasionally for transportation. Outlawing the use of skateboards on some roads (such as arterials and collectors) and in areas of high foot traffic may help, but youth will still skate on residential streets where no sidewalk or path is available. Assuming that teens know that safety gear is recommended, what can influence their decision to wear it?

Teens are exposed daily to other important public health messages, especially the dangers of tobacco use, drinking and driving, and unprotected sex. Perhaps youth, accustomed to denying the long-term consequences of such risky behaviors, choose to deny the possibility of immediate consequences of injury. Vast community health promotion and disease prevention campaigns are aimed at teens, yet almost no such programs exist for safety issues apart from teen driving. As scientists and public health educators, we cannot simply abrogate our responsibility to their safety simply because it is a difficult task. We must begin to address the need for adolescent safety among this reluctant audience as they enjoy practicing their distinctive lifestyle.

Who should lead the effort? State health departments

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Competing interests:
None declared

West J Med
2002;176:e1-e2

lack sufficient resources. School officials focus most of their efforts on education about the dangers of tobacco, drug, and alcohol misuse and in preventing HIV/AIDS and teen pregnancy. Parents are often uninformed or feel powerless to enforce safety rules for their teens, even though studies indicate that youth look to them for guidance. Lawmakers are reluctant to draft legislation addressing personal behaviors unless they are a threat to others and are readily enforced. Even though laws concerning bicycle helmet use have been one of the most effective means of increasing helmet use among children,[4] they have not decisively influenced teens.

The remaining option is peer pressure to change the culture of safety. As more teens are seen using safety gear and riding mainly in skateboard parks, safe skateboarding is more likely to become a social norm. Perhaps manufacturers of skateboards and publishers of skateboard and teen magazines can take a more pro-active role in promoting safety, although in doing so, manufacturers risk acknowledging that the sport may not be completely safe. If manufacturers and marketers actively support campaigns to reduce teen smoking and underage drinking, why not include injury prevention in this regard? Finally, youth must become involved in creating their own solutions. A community dialogue among teens, public health educators, emergency medical technicians, police, and others might generate workable ideas to improve the safety of skateboarding.

References

1 US Consumer Product Safety Commission. *National Electronic Injury Surveillance System Data, 2000.* [Machine-readable public use data tapes]. Washington, DC: US Consumer Product Safety Commission; 2001.

2 Schieber RA, Branche-Dorsey CM, Ryan GW, Rutherford GW Jr, Stevens JA, O'Neil J. Risk factors for injuries from in-line skating and the effectiveness of safety gear. *N Engl J Med* 1996;335:1630-1635.

3 Thompson RS, Rivara FP, Thompson DC. A case-control study of the effectiveness of bicycle safety helmets. *N Engl J Med* 1989;320:1361-1367.

4 Schieber RA, Kresnow MJ, Sacks JJ, Pledger EE, O'Neil JM, Toomey KE. Effect of a state law on reported bicycle helmet ownership and use. *Arch Pediatr Adolesc Med* 1996;150:707-712.